

ROCKY MOUNTAIN SPOTTED FEVER

Rocky Mountain spotted fever is a rickettsial disease caused by *Rickettsia rickettsii*. The disease is characterized by fever, headache, and myalgia, followed in three to five days by a maculopapular rash on the extremities that includes the soles of the feet and palms of the hands. The rash spreads to the rest of the body. Humans contract the disease most commonly from the bite of an infected tick or by contamination of the skin with tissue or feces from an infected tick. The tick must be attached for feeding for 4-6 hours. In Kentucky the American dog tick, *Dermacentor variabilis*, is the most common vector.

Laboratory Criteria for Confirmation:

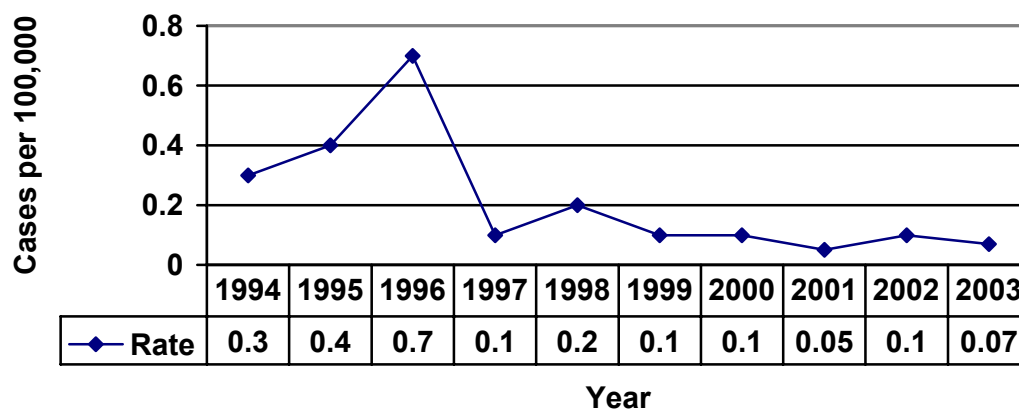
- Isolation of *R. rickettsii* from a clinical specimen (rarely performed), **OR**
- Demonstration of positive immunofluorescence in tissue biopsy, **OR**
- Fourfold or greater change in antibody titer to *R. rickettsii* antigen by immunofluorescent antibody (IFA), complement fixation (CF), latex agglutination (LA), microagglutination (MA), or indirect hemagglutination (IHA) test in acute and convalescent specimens ideally taken three weeks or more apart, **OR**
- Positive polymerase chain reaction (PCR) assay to *R. rickettsii*.

Case Classification

Confirmed: A clinically compatible case that is laboratory confirmed.

Probable: A clinically compatible case with 1) a single positive antibody titer by IFA ($\geq 1:64$ if IgG); or 2) a single CF titer $\geq 1:16$; or 3) a single titer $\geq 1:128$ by a latex agglutination, indirect hemagglutination antibody, or microagglutination test; or 4) a fourfold rise in titer or a single titer $> 1:320$, by Proteus OX-19 or OX-2 test.

**Rocky Mountain Spotted Fever Incidence
Kentucky, 1994-2003**



Epidemiology

Kentucky	2003	Rate per 100,000	U.S. Rate (2002) per 100,000
Cases	3	.07	0.39

2003 Kentucky RMSF

The three confirmed cases ranged in age from 2 years to 47 years. All of the cases had an onset in August.

An additional 14 cases were classified as probable cases. These cases ranged in age from 1 year to 68 years of age. The lack of a convalescent titer is the primary reason more cases are not confirmed.

All of the cases were reported from the western portion of the state.